James F. Miller

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Professional Experience

1976-present, Argonne National Laboratory

- ***Director, Electrochemical Technology Program***: Responsible for electrochemical research and development conducted in five divisions at Argonne. Manage program development and marketing for Argonne's battery and fuel cell research and development (R&D).
- ***Manager, Transportation Technologies***: Responsible for transportation technologies within Argonne's Chemical Engineering Division. Managed the Fuel Cells for Transportation Group, the Fuel Cells for Building Program, and the government/industry Partnership for a New Generation of Vehicles (PNGV). The fuel cell project provided technical support to the U.S. Department of Energy (DOE) for the technical management of major fuel cell R&D efforts ($15 million/year) conducted by the Big Three automakers and their suppliers under DOE contracts. The work included preparing work plans, evaluating proposals, and providing technical guidance and direction to contractors. In the PNGV program, provided direct support to DOE in the preparation of program plans, position papers, and assessments and recommendations. Participated as member of the PNGV Fuel Cell Technical Team, which provides guidance to all fuel cell work under the partnership.
- ***Group Leader, Fuel Cells for Transportation***: Responsible for technical direction of DOE-sponsored contracts with industrial developers of fuel cell systems. Directly responsible for technical management of the phosphoric acid fuel cell bus project, leading to the successful development and demonstration of fuel cell powered buses. Provided oversight and guidance to DOE/automaker fuel cell projects.
- ***Group Leader, Battery Development Projects***: Responsible for technical management of major DOE contracts with industrial battery developers. Work also included assessment studies of battery technologies for DOE, the Electric Power Research Institute (EPRI), and industry sponsors.
- ***Assistant Physicist***: Conducted research and development on advanced battery technologies for electric vehicle applications and stationary energy storage. Work included analysis of battery design and performance results, and modeling and simulation of electric and hybrid vehicles.
- ***Postdoctoral Fellow***: Conducted basic research in the Material Science Division. Investigated physical properties of hydrogen in metals and metal hydrides.

University of Illinois, 1972-1976

- ***Graduate Research Assistant***: Conducted thesis research on superconductivity of metal hydrides.

Professional Activities

- Society of Automotive Engineers (SAE), conference organizer, 1995, 1993
- American Society of Mechanical Engineers (ASME) Fuel Cell Power Systems Committee, Secretary of the ASME Committee on Fuel Cell Technology
- International Energy Agency (IEA) Advanced Fuel Cells Agreement, Operating Agent for Annex on Transportation Applications of Fuel Cells
- Organizing Committee, 1st International Conference on Hydrogen in Materials
- Co-Chair, 2nd International Conference on Hydrogen in Materials
- National Hydrogen Association, member
- American Physical Society, member

Publications

- More than 100 publications and conference presentations on energy storage and energy conversion topics

Awards

- Argonne National Laboratory Pacesetter Award, 1994
- U.S. Department of Energy Fuel Cell Award, 1998

Education

- MBA, Business Administration, The University of Chicago
- PhD, Physics, University of Illinois at Urbana-Champaign
- MS, Physics, University of Illinois at Urbana-Champaign
- BS, Physics, University of Missouri at Columbia